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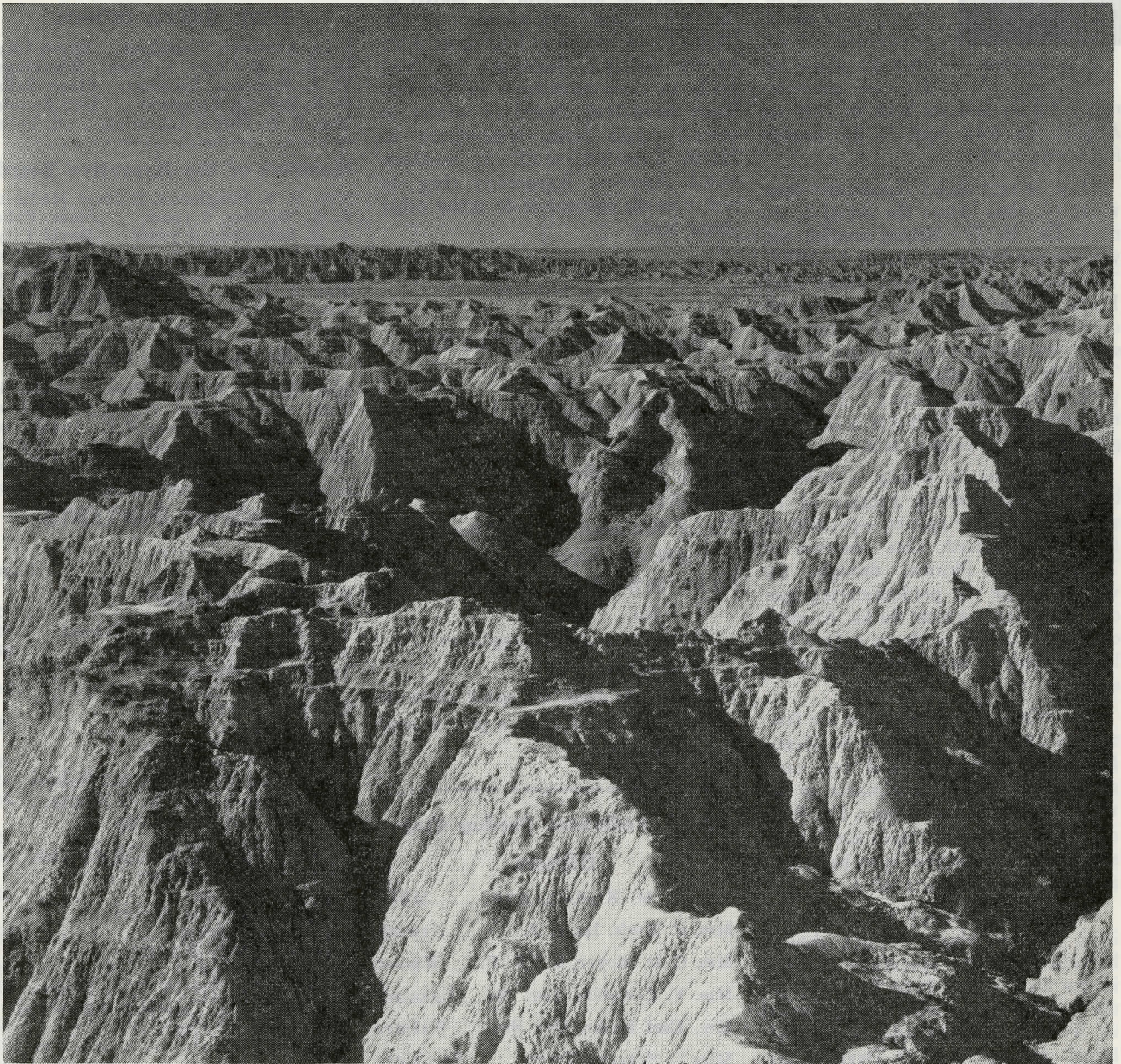
VOLUME 29

DAKOTA

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HORTICULTURE

JULY - AUGUST, 1956



The Graveyard of Dinosaurs, Badlands of South Dakota

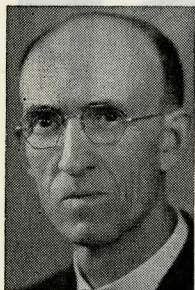
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THE WESTERN SANDPIPER

by

O. A. STEVENS



O. A. Stevens

rear a family and are back in July or August, on their way to the tropics for a long winter.

How do they do it? Apparently they waste no time when the occasion arrives. Dr. E. W. Nelson studied the western sandpiper in Alaska in 1887. The birds began to arrive about May 10 to 15 and were very abundant by the end of the month. Another observer saw young birds by June 15 and "by July 18 the mud flats were covered with fully fledged young." Probably they feed nearly 24 hours a day and grow at a tremendous rate.

This species is widely distributed but not well known because of its similarity to other species, especially to the semi-palmated. One observer at Tampa Bay, Florida, thought the western to be the predominating species in the large winter flocks. Another observer was able to detect only a few least sandpipers mixed with the western.

Records of it in our region are few, apparently because it cannot be identified readily by sight and one can't shoot all the little sandpipers to see what proportion are western. Dr. Roberts had no definite records for Minnesota though he believed it to be present and had a few reports of it.

Williams apparently did not record it at Grafton, North Dakota, though he collected many specimens of birds in the early years. Judd had reported the western mixed with semi-palmated in Towner County and Wood collected one specimen at Devils Lake. So it goes through local reports. The

recent South Dakota list puts it as a transient through the eastern part of the State. That Elliott Coues did not find it when he was in North Dakota in 1873, should be evidence that it was not more common at that time.

The nesting territory of the western sandpiper is limited to northwestern Alaska as far as known. People who studied them in that area reported that they were particularly tame. One man put his hat over a nest leaving room for the bird to crawl under it which she proceeded to do.

In the fall they seem to "scatter to the four winds," are common on the Pacific Coast and in at least some years on the Atlantic. Reference has been made to their abundance in Florida. They have been found in winter in coastal stages from Washington to North Carolina, south to northern South America. Apparently they do not cross the equator as do many other shore birds.

Freedom—The Perfect Gift

by

MARY LOUISE KINYON

I envy not a King or Queen

A Prince or Princess rare.

For of this good old wholesome earth

I still can have my share.

So let them reign in pomp and splendor.

I'll work and earn my own provender

I'll breath in deep, the sweet clean air

Knowing freedom is a gift beyond compare.

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DAKOTA HORTICULTURE

NEWSLANTS

by

HARRY GRAVES



"The best two days I have spent in a good long time—too bad more folks couldn't have been here." These remarks by Mrs. Olaf Birkeland of Sheyenne as our annual meetings drew to a close, pretty well expressed the sentiments of the 159 people who signed the guest register. The meetings, held in the Benson County Agricultural School at Maddock, reflected good planning on the part of people of Maddock and vicinity. The weather was near perfect and the program personnel all answered roll.

Two main components go to make up a meeting of this kind. Good talks and good displays, on one hand; and good people on the other. We had both at Maddock. Maddock, located in western Benson county, has a population of 800, or so. It is a proud little city with civic minded citizens, a very good, small hotel; the Benson County Agricultural School, and streets well planted with trees.

The sessions got under way at 2 p.m. on June 28. Mrs. Clifford Westby, President, called the meeting to order and welcomed those assembled. In her presidential address, Mrs. Westby explained the work of the North Dakota Horticultural Society for the benefit of newcomers. She briefly outlined the program for the next two

days, appointed committees, and called for reports. Reports of the Secretary and Treasurer were heard, approved, and filed.

Under the heading of new business, Eric Sochting invited those present to the Annual Valley City Flower Show, August 23, 24, 25, 1956. Sochting is manager of this show sponsored by the Valley City Lions Club. Exhibits for this show are solicited statewide, there is no entry fee, and there are several cups to be won. Eric also urged everyone to send, or better still bring exhibits to the Fourth Annual Non-Competitive Fruit Show, sponsored by the North Dakota Horticultural Society, and also scheduled for Valley City. The dates for the Fruit Show are September 27, 28, 29, 1956.

Dr. E. P. Lana, Chairman of the Department of Horticulture at NDAC, commented on his experiences and impressions of North Dakota, so far; and told of research under way in the Department of Horticulture at the North Dakota Agricultural College.

Mr. and Mrs. Martin Johnson of Sheyenne Gardens, West Fargo; held the attention of the group with a discussion illustrated by kodachrome slides and fresh plant material. Their topic was, "Herbaceous Perennials We Have Found Worthwhile." The Johnsons drew on their years of experience as flower lovers, and more recently as operators of a small plant nursery on the banks of the Sheyenne River near West Fargo.

C. L. Jensen next outlined plans for the tour on Friday. He congratulated the local committee on the excellent job done on arrangements for the meetings. He also expressed the opinion that we should have more North Dakota pictures and articles in Dakota Horticulture. Secretary Graves acknowledged guilt in this matter and promised to do better—if re-elected.

Don Hoag, who was on the printed program for informal suggestions on the arrangements of garden flowers, soon found himself hemmed in by about 50 women—each with several questions on flower arrangements. The final result was that Don had to dig out a few vases and give a more, or less formal presentation on the subject. Don did his usual fine job. A well informed, true artist, and an excellent teacher.

The afternoon program ended in time for rest, visits, and viewing exhibits; before attacking the fine Buffet Dinner served by the North Viking Ladies Aid. To those of us with a weakness for Norwegian dishes, the large plates of lefse will leave memories that will linger awhile.

Shirley Walkof, who has won high honors in Provincial piano competition in Manitoba, accompanied her parents and sister, Jean, to Maddock. Unfortunately for Shirley, some of us had heard her play a few years back. With some urging, Shirley was prevailed upon to play a few numbers before the scheduled evening program began. A most enjoyable and unexpected treat!

Following the musical numbers, President Westby called for the report of the nominating committee. Clarence Jensen, chairman of the committee, presented the following slate of officers, and moved their nomination: president, Mrs. Clifford Westby, Maddock; eastern vice president, Robert Askew, Casselton; secretary, Harry Graves, Fargo; treasurer, Earl L. Shaw, Fargo. N. N. Boehm seconded Jensen's motion. Nominations were solicited from the floor. None being heard, the slate was declared duly elected as nominated by the committee.

Dr. Charles Walkof, Vegetable Specialist at the Dominion Experimental Farms, Morden, Manitoba; then gave the main presentation of the evening. Charlie took us on a horticultural and scenic tour of England, Scotland and several countries of Continental Europe. The slides were excellent, Dr. Walkof's story well in hand, and most interesting.

The movie produced by the American Association of Nurserymen, "Landscaping for Living," was shown courtesy of R. J. Layton of the Northwest Nursery of Valley City to conclude the evening program. Approximately 145 exhibits of noncompetitive flowers were displayed about the auditorium.

The tour on Friday filled the Westby's large farm yard with automobiles. After viewing the extensive horticultural plantings in the Westby yard, the tour members were served coffee and doughnuts by Mr. and Mrs. Westby in their Outdoor Living Room.

(Continued on page 95)

PRESIDENT'S MESSAGE

by

MRS. E. M. KINDRED



Mrs. Kindred

For those of you who attended the state convention in Brookings—it was good to see you again and to make new friends, fun too. We missed all of you who were unable to be there.

As so often happens time was short so I have chosen to give you my report via this column.

This is the time of year when we look to the distance that we have traveled and look ahead into the future.

South Dakota now has 59 clubs with a membership of approximately 1300. Our six new clubs are: The Aberdeen Garden Club, The Canton Garden Club, The Arrangers Club, Huron, The Arnegardners, Arnegard, N. Dak. The Aggasiz Garden Club, Park River N. Dak., and the Hoe and Hope Garden Club, Webster.

During the past year all clubs have made progress in areas of activity sponsored by our state federation and National Council. We are working towards stronger district organization. Through these meetings more club members are directly reached.

There has been an increased interest in conservation of our native flora and very soon 40 slides of wild flowers of South Dakota will be a part of our slide collection and it is hoped that clubs will see that the school children of their community have an opportunity to see them sometime this coming club year.

A state-wide plant-testing program was inaugurated with 120 members participating. Contributions to Seeds for Democracy have been generous. The Vermillion Club is to be especially commended for providing 60 Hopa Crab trees to Boy Scouts to be planted in their own yards. Over 100 more were planted by members over the state in parks and yards. Sixty percent of the members have contributed to our Permanent Home Fund.

We have seven Nationally Accredited Flower Show Judges. A Judges Council has been formed with Mrs. L. B. Severance, Huron, chairman. If you need judges for your flower shows write for names of judges available and those who will soon be Student Judges. All should be given an equal chance to do some judging since this is a requirement in keeping their certificates in force. Three judges qualified as instructors for Flower Show Schools this past year. Two Flower Show Schools were held offering courses 1 and 2. Two more are planned for early autumn offering courses 1 and 3. Course 3 will be held in Brookings on the Campus the last week of September. Flower Show standards have improved as a result of these schools.

The location of three of the newer Roadside Parks was the direct result of recommendations of the garden clubs of those communities.

A committee has been appointed to work out a suggestion for a uniform club year within the state.

Garden Therapy has been an active part in the work of most clubs and pleasure and profit have been derived by patients in our Veterans Hospital, the Old Soldiers Home, Crippled Children's Hospital, Children's Homes and Shut-in's.

Civic Achievement has centered around park improvements and plantings around public buildings. Garden Clubs in several communities are en-

tirely responsible for plantings in their city parks.

Your president was most happy to represent our federation at the impressive Arbor Day Observance at the site of the cutting of the Eisenhower Tree in the Black Hills. As a part of this observance 1,000 5-year Black Hills Spruce were given to elementary and high school students attending. These had been carefully wrapped by one of the foresters. Two state board meetings were held the past year.

The growth of South Dakota's Garden Club work and the wonderful cooperation of officers, state chairmen and club members have made serving this federation rewarding.

As a new state year begins let us set our eyes on the clouds for vision but keep our feet on the ground for balance as we plan our year's work.

The current trend sees a marked advancement in many features of this popular perennial-size of bloom, texture, color, substance, branching qualities and recurrence of bloom. All the outstanding improvements and in my opinion "it couldn't happen to a nicer guy." The daylily is certainly one of the nicer perennials; never harbors a bug; never has known disease; never fails to come back after any kind of winter.

E. C. LEHMAN in
THE MINNESOTA HORTICULTURIST.

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VERMILLION, SOUTH DAKOTA

(Established 1929)

Plan to visit us next fall when the Mums are blooming. We are located on Highway 50, right in Vermillion.

MANITOBA NEWS LETTER

by

W. R. LESLIE



Leslie

Landscaping the Farmstead is an opportunity for all who control the development of a farm property. Among the considerations are—improving the comfort of man, beast and plantations by establishing efficient shel-

terbelts; arranging the various units for maximum convenience; increasing family esteem in the home estate by having neat buildings, well-painted, a strip of plushy lawn, stretches of colorful shrubberies with masses of gay flowers nestling in one or more of its bays; and the satisfaction of owning a rural estate which is of increasing value due to its general attractiveness and well-being.

Shelterbelts are a first consideration in the Northern Great Plains area. A snowtrap hedge or tree row is planted on the north and the west to control snow drifting. A main shelterbelt of about five rows is set within the snowtrap hedge row at a distance of 60 to 150 feet. One, two or three rows are planted on the south side, and in most cases also one or more rows on the east boundary of the farmstead area.

Approachs The first impression upon travellers driving past the property on the main road, and upon visitors approaching the buildings by the driveway, is of much importance. Attractive fencing, gates, mail box, a smooth all-weather road, clean ditches and neatly groomed lawn, trees and borders, impart an atmosphere of happy living and of welcome.

The grounds seen in approaching the house comprise the Public or Approach Area. Usually these include the front lawn, the trees and shrubs which frame the house, and the lawn, a foundation planting of low to medium shrubs about the residence and the flower border set in a curving bay formed along the side shrubbery.

A series of notes will follow. These are to supply suggestions for possible

improvements in farmstead landscapes. A first resolve is not to attempt a plan which involves a great deal of work. There is temptation to have overly large lawns, shrubberies, and flower borders. Fortunately, with the installation of electric power and self-propelled machines landscape care is done in less time and by light work than previously. However, the objective is to develop and maintain a neat, comfortable, attractive home landscape in a manner which brings pleasure to the workman but which is not so extensive as to become a wearying burden.

The first considerations are the shelterbelts and the Approach.

The *Service Area* comes next. It includes the road to the barnyard, the garage, drying yard, litter or trash cans, fuel storage, the well, and the kitchen garden. Convenience is a guiding objective. These utilities are to be handy to the kitchen entrance. A space for deposit of rubbish may be screened off by shrubbery.

The kitchen garden may include a plantation of fruits. Usually the fruit trees and plants are placed farther from the kitchen than is the vegetable portion. Flowers for cutting are grown in the kitchen garden. It is desirable to have the garden well sheltered, exposed to direct sunshine, and so located that irrigation water can be readily applied from the farm dugout. The dugout reservoir is usually placed on the inside of the shelterbelt, or in the snowtrap area.

The *Pleasure Garden* is the private area. Here is the modest family park where an area is screened off for relaxation. It should be close to the house and offer shade and beauty. The furnishings include some shade trees, ornamental shrubs, favorite flowers, seats, a lawn table, and sometimes a rustic summerhouse, pergola, bird bath, and pool. The setting is adapted for privacy and entertainment. For simplicity of treatment and lessened work, the pleasure garden may be incorporated in the front lawn. The brightly colored subjects belong here. Examples are Weeping Whitebirch, Blue spruce, Redstem and Yellowstem willows, Schubert chokecherries and Golden elder.

The *main lawn* in the approach area is left mostly open along the driveway. Most of the planting is about the boundaries. The lawn is considered as comparable to the surface of a lake.

It is not to be cut up with flower beds and numerous trees and shrubs. The plantings on a farmstead, where there is much room, look well when arrayed in flowing, natural lines. Considering the boundaries to be a shoreline, they will be curving along the edge of the grass rather than forming sharp corners.

To maintain a balance to the home picture, the lawn is made about twenty feet wider than the house. If the house has a thirty-foot frontage, the lawn will be about 70 feet wide. The length will be one and a half times the width or about 105 ft.

Fencing is erected to protect the special areas against access by livestock and poultry.

Stress has been placed on comfort, convenience, balance and neatness. Other considerations are of secondary importance. However, some further suggestions follow:

Foundation Planting: The house assumes a cosy appearance when it arises out of shrubbery. The house, being the chief unit of the farmstead, should hold prominence in the scene. Some large trees are placed at the rear and off from the corners of the building. Fairly large shrubs may be placed near the house corners, but at the front only smallish varieties of fine texture are used. Restraint is practised as to variety and quantity. Three to five types are preferred to a larger diversity. At two or more places a space is left so that the foundation is in view. Groups are more effective than a series of individual specimens. Dwarf evergreens are attractive but tend to a heavy gloomy reaction unless relieved by some deciduous flowering shrubs. Tall shrubs at the front corners are tapered down by lower materials to meet the lawn. A distinctive shrub or small mass is planted at each side of the front door. Taller shrubs are used in front of wide wall spaces and low subjects under windows to blend the house neatly into its setting.

Plants considered for foundation planting include junipers, arborvitae, mugho pine, pachistima, daphne, Dwarf and Turkestan euonymus, spiraeas, potentilla, mockorange, dogwoods, hydrangea, roses, barberry, cotoneaster, prinsepia, Sweetberry honeysuckle, hawthorns, viburnums and lilacs.

(Continued on page 91)

GARDEN CLUB GLEANINGS

by

MRS. VERN TOMPKINS



Mrs. Tompkins

Please accept my apologies for letting the Flu Bug catch up with me, making it impossible to get anything in the magazine last issue.

Nita Jorgensen tells of the doings of the Dell Rapids club. In

March a program on Hemerocallis, with a talk by Mrs. Jonas Duea; colored slides, price lists and posters in evidence. A table arrangement of African Violets, driftwood, ribbon, and wee violet 'corsages,' by Mrs. Joe Flamo, dramatized the serving table. In April Mrs. Briley reviewed an article on 'The Wealth and Wonder of Trees,' from National Geographic Magazine. It seems that information on our State Tree, the Black Hills Spruce, is sadly lacking. Miss Edna Shreve showed slides made in Hawaii. Two members won three blue ribbons at the African Violet show in Sioux Falls. Mrs. L. J. Andersen was a delegate to the National African Violet Show in Minneapolis.

The Home Garden Club, of Britton, are planning their second Iris Show, to be held soon. This club is a member of the National Iris Society, and rules will conform. Reports on birds show that Whistling Swans and Eastern Bluebirds, as well as Mountain Bluebirds, are some of the most interesting. Mrs. A. M. Odland is Publicity chairman.

Mrs. O. F. Pravecek reports for the Colome club. Activities include a Gypsy Breakfast last September, at Brandon Springs; a trip to Mitchell, and tour through Abbott House; gifts to the children in the Home, at Christmas; entertained members of the Winner club in October; a report on a visit to the International Peace Garden in North Dakota, by Mrs. Ed Kenaston; made May baskets for residents of the Home for the Aged, as well as other shut-ins, and one member makes frequent calls at the Rosebud Community Hospital. Baskets of fruit are sent to the sick, and gifts to members in the hospital. Members conducted

the Red Cross drive in Colome.

Mrs. Oscar Akerson, Secretary of Lawn and Garden Club, Webster, in her report states that they made six Christmas wreathes and placed them on the doors of the churches. Mr. J. M. Atkinson spoke and showed slides on Landscaping at an open meeting in March. They were making a float and sponsoring a Jubilee Queen for the 75th anniversary celebration. Their Park improvement work continues, window boxes were being planted, to be placed at the City Hall; two new Garden Club road signs have been purchased, making four in all, and a successful Plant Sale was held in May.

News of the Rural Garden Circle, of Crooks, comes from Mrs. Olaf Olson, and Inga Tideman. In April a bulb and root exchange was held, and Mrs. Ernest Elmen, of Sioux Falls gave an interesting demonstration on Flower arranging and the making of corsages. The Spring Tea was held May 23rd, with sale of lunch, home made candy and potted plants. Floral arrangements were displayed by members and a scenic film on Canada, and instrumental music was enjoyed.

Mrs. R. K. Morrell, Pierre Garden club, states that the date of their annual Flower Show will be August 10. Miss Millie Biewer spoke briefly, at the April meeting, on the International Flower Show, which she attended in Los Angeles.

The Andover Garden Club is sponsoring a 4-H group of 15 boys and girls, who will study gardening. They are also taking over part of the Civic garden as their project this summer, having started plants at home in the spring. Mrs. Francis Bingen is their leader, and other members assist.

Mrs. L. N. Brakke sends the following from the Lyons Garden Club. In May Gloxinias, New Mums, and Garden Hints were discussed. Tulip Show held May 25th, with fifty beautiful entries, the most ever. A plant and candy sale, musical program, lunches and three door prizes sounds interesting, and busy.

Mrs. John Febuary says, of the Fair City Club activities—In March a public meetin with B. Davidson speaking on 'Our Heritage.' The F.F.A. boys from the high school gave a soil testing demonstration. The horticulture lesson and display was "Hyacinths," by Mrs. Carl Metzger, who displayed

gorgeous hyacinths she had forced. Mrs. Shanahan's arrangement 'Bit o' Ireland' was displayed. March therapy project was St. Patrick greeting sent to shut-ins. It was decided to sponsor a city-wide petunia planting contest. The petunia being the Huron city flower. The April program was on 'The Life of John Robertson' by Mrs. A. Photakos. We had a display of African Violets and Gloxinias, and Mrs. Isaac Wagner gave the horticulture lesson on them. Films on the subject were shown, and Mrs. Carl Metzger made the arrangement 'Breath o' Spring.' The therapy project was Easter baskets delivered to convalescent homes in Huron and Wolsey, and to St. John's hospital. In March a booth at the Boy Scout Exposition and Adult Hobby Show.

In May "Wild Flowers" was the topic, with an interesting paper on the subject read by Mrs. A. Saunders. The horticulture lesson and display was 'First Flowers of Spring' by Mrs. Fred Hoffman. We had Red Emperor tulips, Scilla, Muscari and Mertensia. Mrs. E. Dietrich displayed three lovely corsages. The Arbor Day project was a contribution toward the camp site recently purchased by the Girl Scouts.

Newly elected officers of the Iroquois Garden Club are: president, Mrs. R. W. Habberstad; vice president, Mrs. Amanda Ohlsen; secretary, Mrs. William Walls; treasurer, Mrs. Russel Laposkey. In May the Fair City Club were guests, and slides of flowers from Holland, also slides of the floral display at the Lyon County Fair, in Iowa were shown. The DeSmet Garden Club will be guests in June. These clubs have visited back and forth for many years. Mrs. Habberstad reporting.

Harlan Dirks, County agent of Hand County, talked and showed slides on soil conservation at the March meeting of the Miller Community club. Mrs. Tabitha Grey showed slides and gave an interesting talk on "The Symbolism of the Passion Flower." Two Almen crabs were planted in the city park on Arbor Day. Mrs. Kindred presented "Introductory Study on Flower Arrangement." For the therapy project, members made May baskets for the aged and shut-ins.

Mrs. Flora K. Jeffreys sends a summary of the past three months of the Rapid City Garden Club. Pot luck

(Continued on page 88)

EXPERIENCES IN HORTICULTURE

by

R. L. WODARZ



Wodarz

This is the 25th of June, and we know, by now, what to expect along the line of a plum and apple crop. As I do not have any bees of my own, I have a beekeeper bring a number of hives about the middle of May. This year, for some reason, the beeman brought his 60 hives the last week of May and at that time, the crabs and apple trees were just coming into bloom, and the plums had already shed their petals. Plum blossoming time was very favorable, but I have not noticed one single honey bee around the many trees, and I got to thinking that if we have any plums at all they would be rather scarce. However, by examining the trees now, we are having the best plum year of many a year. I am wondering what did the cross-pollination, as all of my hybrids are not self fertile. As to apples, the bees worked them over a plenty, so most of the trees carry a

good crop. If some of the varieties did not set a good crop, it was not the bees' fault. Some years, for some reason or other, some kinds will come along with innumerable fruit buds, the bees may do a good job and still there is a light fruit set. Being that there was no fruit last year, the trees come along with many fruit buds. It is a long time since, that I noticed as many terminal blossom buds. In my tree nursery, where I have my root-grafts lined out, a goodly number of the scions send out blossoms as well as leaves. Most always the blossoms drop off, although I have an exception this year. I put on a graft of red Stanger apple on a small tree and this scion put out a blossom and set four apples. If those mature, which I think they will, I'll have an idea of the quality of this fruit. One thing I am sure, it will bear fruit in clusters. By the way, many of my last year's grafts are bearing fruit; usually nothing happens until the third year. I am glad to report that most of the variety of apple trees which, this spring set out in Richland county are bearing. So there will be a good opportunity to get acquainted with the fruit that their trees will be producing sometime in the future. In these articles I have been mentioning off and on about double worked trees, and there really has something been done about it. Ernest Kapaun, at Maple Valley Gardens has set out a goodly number of Siberian crabapple trees, which two years ago,

and again last year, were topgrafted to good quality, but more tender kinds. Top grafting was done about head high. Mr. Kapaun has a very interesting orchard and with tender care, he is accomplishing wonders. Another very promising orchard is that of Lawrence Fradette; this is along the Sheyenne River, at Horace. It is surprising what an energetic person can do within the space of ten years. This early spring showed fruit buds galore and this apple plantation is very extensive for North Dakota. The land is of the best, and there are irrigation facilities. Some years past Mr. Fradette set out a number of Dolgos. There we, that is, Lawrence, his wife and I, grafted these Dolgos to Beacon and Haralson, these two that we know take well on this particular stock. One thing in favor of the Dolgo outside of it being hardy, is its blight and scab resistance. Because we have so many new varieties to draw on, we are apt to forget the Wealthy. Top grafted, is as hardy as anything we can grow in this climate. If you were blindfolded and given to sample a Beacon and a Wealthy, I bet you will pick the Wealthy as the better.

If you will meet your problems as they come up and get the satisfaction of a job well done, play hard—have fun doing it—then I think you will have a lot of fun every single day.

—PRESIDENT EISENHOWER, in a speech to students.



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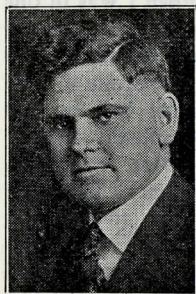
BISMARCK, NORTH DAKOTA

WRITE FOR OUR 1956 FALL LIST

SCIENTIFIC PLANT BREEDING

by

DR. A. F. YEAGER



Scientific plant breeding is a 20th Century Phenomenon. While Burbank was a plant breeder, he was not a scientist. Mendel, whose discoveries were first given publicity in 1900, was a scientist but not a breeder. The

writer of this paper took a course in Plant Breeding at Kansas State College in 1909. That was the first year Mendelism was made its center. The relationship of it to chromosomes was not known. Your own Dr. N. E. Hansen was the pioneer horticultural plant breeder in the land grant colleges. He was an inspiration to me. Had he had funds for an assistant, it would perhaps have been me, for I asked him for a job. My work in plant breeding began in 1919 at the North Dakota Agricultural College. It was based on Mendel's law and was productive but it was not until 1930-31 when I went to Iowa State for graduate work that the science of cytogenetics, as first outlined by Darlington, really made plant breeding a science. For the most part we still do the same today as we did then but with a better understanding of what is happening. These things include: The Selection of two parents who supplement each other, crossing, raising succeeding generations, self-pollination, back crossing, selection of desired plants at all stages. In recent years other procedures have been added. One of these is chromosome doubling by the use of alkaloid colchicine. By its use some sterile hybrids may be made fertile; likewise some fertile plants become sterile. New color variations have been possible. We also do some things with colchicine not yet explained, which cause variability and hence make new things possible. That has been demonstrated here at South Dakota State in sorghum. The method now receiving much publicity is the use of atomic energy. Irradiation is of

two principal kinds, that from X-rays and Beta rays which physically blast chromosomes to pieces, and 2—that from exposure to neutrons which penetrate more deeply and may produce chemical changes such as changing nitrogen to carbon or phosphorus to sulfur. Cosmic rays from outer space, are also bombarding cells with similar effects and ultra violet rays may also affect cells. Even ultrasonic waves, which are sound waves, far too short for us to hear may disrupt cells and chromosomes. The final effect of all these is mostly unpredictable. The result on a plant comes in a single cell. If this cell survives, it divides and re-divides becoming an area of different tissue. A plant with such an area is called a chimera. Later this area may enlarge by growth, becoming eventually a sporting branch. In a rose or carnation it may perhaps be named and patented. In seed propagated plants if it affects the second tissue layer from which pollen and eggs are produced it provides breeding material for crossing. While up to now scientific plant breeding has been based on chromosomes, the part of the cell outside the nucleus is becoming too important to ignore. Even now this cytoplasmic inheritance makes possible hybrid onions, as well as hybrid corn, without detasseling. It needs more study. Many examples of plants now being produced by breeders are to be found in the news every day. Detailed results of New Hampshire horticultural plant breeding were reported in two bulletins published in 1950. The new ones will be out next winter. These will tell of such things as bush winter squash with edible seeds, watermelons which have an orange shell when ripe, blue pod peas for easier picking, really hardy climbing roses, raspberries which crop from the ground, early honey dew melons, blight resistant chestnuts, hardier peaches and many others. Plant breeding is no longer the step child of the family but the leader of the parade for new and better crops. It will be so for many years and there is room for the brightest and most ambitious of your sons to be the leaders of tomorrow. It must be they who will carry forward the scientific plant improvement program, begun by such men as Dr. N. E. Hansen, supported by men like John Robertson and carried forward as best we could by such disciples as myself. It is still a wide open field for

one who loves plants and wants to make life count—the struggle for a better world.

ARTIFICIAL LIGHT FOR HOUSE PLANTS

by

D. C. KIPLINGER,

Prof. of Floriculture

Ohio State University

Lack of sufficient sunlight is often the reason that many plants do so poorly in the home. With a limited number of plants it is possible to use artificial light and obtain satisfactory growth.

Kind of light to use. Incandescent or tungsten filament lights give off considerable heat and in general are unsatisfactory as a source of light for most plants. They may cause undue "stretching" of stems, flower stalks, and petioles or leaf "stems" of some plants which makes the plants unsightly. When lighting large foliage plants, the reflector flood type of light is satisfactory, and it is usually placed well above the plants to minimize excessive heat.

Fluorescent lights are cooler, but do not supply quite as much light as incandescent. They are satisfactory for plants that grow well in low light intensity. The 40 watt standard cool white is the most satisfactory kind of fluorescent light to use. These are available at any dealer that handles fluorescent lights.

Reflector. To direct the light on the plants, use some type of reflector. The 2-tube industrial reflector is suitable and two of these mounted side by side will light an area 4 feet by 4 feet. At a distance of approximately 12 inches above the foliage, there will be from 500 to 600 foot candles of light.

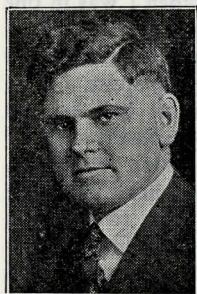
For greater intensity, channels which accommodate one fluorescent tube can be screwed to a piece of plywood. If these channels are placed so the tubes are on 4-inch centers and 2 coats of a good grade of white paint are applied to the plywood to aid in reflection, as much as 1,000 to 1,200 foot candles of light can be obtained

(Continued on page 92)

SCIENTIFIC PLANT BREEDING

by

DR. A. F. YEAGER



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(Continued on page 92)

FELLOW LITTER BUGS

by

MRS. M. L. WASS

A new name for an old bug. Are you proud of your country? Do you love it? Do you think it is beautiful and do you want to keep it that way? It is possible to keep it that way; but not unless something is done about the litter bugs who are strewing our highways and byways with more and more trash and litter each year. What are some of the things we throw out of our cars and leave on the picnic grounds? We are a nation of package users. We package everything in some kind of a container, everytime we go into a store we buy something in a package, paper bags, cartons, boxes, cans, bottles and jars, everything is packaged to make it clean and more sanitary. We invented paper cups to drink out of so that such drink would be out of a germ-free cup. We use Kleenex instead of handkerchiefs, and now we are putting foods and drinks in tin cans and cartons. This would not be so bad if we use them in our homes and disposed of them promptly. Most of us would never dream of dropping trash all over the floor or out in our own yard, but when we get out in our cars, with no garbage cans at hand we have absolutely no feeling about tossing waste matter out on the ground. When we are out on an auto trip whether we are chewing gum, blowing our nose, or taking a drink out of a paper cup and tossing it out the window or even one coke bottle, but multiply it with the number of people who are travelling the highways, and see what a number it

amounts to. There is another phase to the litterbug question, and that is the actual damage which may be caused by throwing things out the window. Many things, including broken bottles and tin cans cause tire damage which cause blow-outs and accidents. We know all about why we have forest fires and people do try to avoid throwing out cigarettes and matches. So, we have to educate the people about why they should avoid doing these things, for their own good and do it of their own accord. Even though we know it is a nasty habit, it is hard to remember not to do it. Garbage is especially obnoxious along the highway because of the odor which soon occurs and because of the various living creatures which it attracts. Use bags in your cars, school rooms, churches and all buildings. Fellow litterbugs; I say fellow litterbugs, because everyone has at some time contributed to the problem of public litter. We are becoming a nation of litterbugs to such an extent that the branches of the government are becoming aroused to do something about it. Encourage your family to do something about it. Do you realize it is costing our government \$30,000,000 each year to clean up after us? Let's not be a nation of litterbugs.

Duty: What the normal man looks forward to with distaste, does with reluctance and boasts about forever after.

—ARGUS-LEADER

Nothing works out right. In a town where you can park as long as you want, you don't want to.

—ARGUS-LEADER

WHEN IS A PLANT DEAD?

by

VICTOR H. RIES

A few weeks ago when I was in one of the big chain grocery stores, I couldn't resist calling the manager's attention to the fact that quite a large number of the roses he had on the counter were either completely dead or so nearly so they were worthless. Since he was not a gardener I had some difficulty in getting him to know a dead one from a live one. Even showing him that the bark was as shriveled and wrinkled as a 100 year old human's skin didn't seem to help. And the fact that they were completely brown and dried out didn't impress him. Neither did the fact that there was no green inner bark. After all they had only had them in the store room for a month. Besides they were selling them for only 39c a piece. He did admit that they were piled up on top of heavier things close to the steam pipes. Yes, they were completely mummified. Thirty-nine cents is a high price for a rose bush mummy for they have no value as antiques.

Unfortunately the Ohio Division of Plant Industry doesn't have a sufficient number of inspectors to police all the many stores selling plants. And unfortunately the store owners and managers seldom know anything about plants, so they think they are as imperishable as fertilizer, sugar, salt, canned goods and bottled soft drinks. So it is up to the paying public to protect themselves by learning to know the difference between a dead and a live plant.

HOME OF *Seeds and Trees That Grow and Satisfy*

Gurney Seed and Nursery Co.

YANKTON, SOUTH DAKOTA

TWELFTH ROBERTSON AWARD

by

H. R. WOODWARD



H. R. Woodward

The Robertson Award for distinguished service in the field of horticulture was made possible through a trust fund that was set up by the late John Robertson, pioneer fruit grower and horticulturist of Fall

River County. During active lifetime John Robertson was a loyal and faithful member of the South Dakota Horticultural Society, and it was his desire that a portion of his estate be set aside for the purpose of honoring and recognizing those who have performed outstanding service to the Society and to the field.

Until his death last November my father, Harry R. Woodward, Sr., was the administrator of this memorial fund, and also served as custodian of the memorial area where John Robertson is buried. This tract, several miles west of Hot Springs on U. S. highways 18 and 85A, is the property of the State Horticultural Society. Some landscaping has been started on part of the area and much more remains that could be done. As I understand it the responsibility for this memorial fund is being placed in my hands. If this is the case, I shall do my best to carry on this splendid program and I shall continue to call upon members of the Society for their counsel and guidance in the selection of candidates for the award. The custodianship of the memorial area has not been a formal arrangement and I don't know that any new custodian should be appointed, or who should appoint him if such was the decision. It is obvious that the area will need some care and supervision and that the initiative will probably have to come from members of the Society. I hope that some good solution to the problem will be forthcoming, because it would be a shame

indeed if this area were allowed to go unkept for any length of time.

It is indeed an honor and a pleasure for me at this time to present the twelfth Robertson Award to Dr. Albert Franklin Yeager, eminent horticulturist, for significant contribution to American horticulture.

Dr. Yeager was born February 12, 1892 at Bazaar, Kansas. He attended Kansas State College where he was awarded the Bachelor of Science degree in 1912. Upon his graduation he was employed in Pennsylvania as a field agent for the Chestnut Blight Commission. This was during the period when the chestnut blight was in its rampant attack on the American chestnut. During this same period he was employed during winter months as an agriculture instructor in the high school at Crete, Nebraska.

Then in 1915-1916 he attended Oregon State College and was granted a Master of Science degree from that institution. He then returned to the East and served as instructor in horticulture at Pennsylvania State College. During this period he took time away from his work to engage in matrimonial activities and was married to Arline Stepanek. Two children, Mary and Albert, were born to this marriage.

In 1919 the magnetism of the West tugged at Dr. Yeager so he and his family moved to North Dakota where he was a member of the faculty at the Agriculture College, Fargo. He became a full professor of horticulture at that institution in 1931. In 1937 the West weakened its hold on him and he slipped back to Michigan where he served as professor of horticulture for two years.

Then in 1939 the West lost its hold completely and Dr. Yeager moved to Durham, New Hampshire to become professor of horticulture and Chairman of the Department of Horticulture at the University of New Hampshire. He has served in this capacity continuously since that time.

Dr. Yeager has also found time in his off-duty hours to serve as Associate Director of the Biological Institute and as Horticultural Consultant to the Beechnut Company. He served as President of the American Society of Horticultural Science in 1950-1951 and is a member of a number of professional societies; including, the American In-

stitute of Biological Science, American Society of Plant Physiologists, Phi Kappa Phi, and Alpha Zeta.

He has developed and introduced thirty varieties of vegetables and flowers, three of which have won All American Award medals. He has also authored innumerable articles about horticulture.

We are very happy here tonight that the East has loosened its grip on Dr. Yeager long enough for him to return here to receive this citation. Dr. Yeager long enough for him to return here to receive this citation. Dr. Yeager, it gives me a great deal of pride and pleasure to present you with this twelfth Robertson Award for your significant contributions to American horticulture.

Presented by Harry R. Woodward at the 73rd Annual Meeting of the South Dakota Horticultural Society in Brookings, South Dakota, June 27, 1956.

MANITOBA NEWS LETTER—

(Continued from page 85)

Trees form a background for the house and act as a frame for the gardens. They mark the driveway by being set as an avenue. A few are placed to provide afternoon shade in the recreation areas.

Among the handsome shade trees in Southern Manitoba are Silver birch, Siberian Silver willow, Ohio buckeye, Amur chokecherry, Siberian and American elms, Manchurian ash, Mongolian oak, Bur oak, basswood, Swedish basswood or linden; Hard, Silver and Tatarian maples; mountain ash, ironwood, Manchurian corkscrew, Manchu and Black walnuts, Scotch, Swiss Stone Red, and Western Yellow pines; White, Blackhills and Colorado spruce and Siberian larch.

Shrubs are the most valuable materials for adorning the grounds. They bank the boundaries, supply a background for flower borders, give a shoreline to the lawn, tie the house into the scene and impart interest the year around. It is important that some subjects are used which maintain charm into the dormant season by their bright colored bark or showy fruit. Fortunately, nurserymen now offer a wide choice of hardy attractive shrubs.

GARDEN THERAPY REPORT 1955-1956

by

MILDRED IBACH

I appreciate your interesting letters telling of your individual club's endeavors and am happy to know that you keep aware of the existence of Garden Therapy and are promoting programs on this type of work in your clubs. Each community has a different situation and I realize that statewide your activity must cover a wide variety of work, but I want you to feel that even the smallest effort counts, and I suspect that the Therapy has a two-way action, benefiting both giver and receiver judging from your letters. I am thrilled each time I read of some new angle you have found to engage your abilities.

Most clubs have reported working with the aged, and this is an enlarging field with the average span of years mounting. Irene Garden Club gave May Day gifts of sweets and Birthday bouquets along with a visit for each elderly recipient. Petal Pals of Brookings made a lovely terrarium for the old people's home in Brookings. This is something for them to maintain an interest in as well as a means of contributing toward its care.

Start-A-Plant Club of Britton bought a *lawn glider* for the Good Samaritan Home at Britton as well as contributing to plantings at that place. They also took packages of seeds and encouraged patients to plant their own flower pots with these seeds. This is good Therapy Work. May I remind you that the Crippled Children's Hospital in Sioux Falls welcomes bulbs and planting material which can be used as class projects in which the students participate. Blossom and Bulb Club of Miller has been very active in making corsage favors for hospitals and teachers and shut-ins and have learned the satisfaction of contributing a bit of beauty and loveliness to those who lack their portion. Miss Ruth Habeger reports her club makes Christmas Table Trees for the Community Hospital each Christmas as well as furnishing flowers for shut-ins.

Sioux Falls Garden Club has placed a bird feeder at the Crippled Children's Hospital and the South Dakota Chil-

dren's Home in Sioux Falls and we learn from Mrs. Neuhauser of Hurley that they are making plans to install bird feeders for shut-ins. The purchase of Songbird Recordings which was suggested at the board meeting last fall for the Lorena Spillers Memorial collection has not been completed for lack of instructions from National Headquarters, but I am still negotiating and they will soon be sent either to National or to our own State School for the Blind at Gary, S. D.

In reply to an inquiry regarding Garden Therapy work being carried on at the Veterans Hospital at Hot Springs, I am advised that because of shortage of personnel and lack of a suitable area work has been somewhat limited, but that at the present time they are seeding their baseball diamond and clearing out weeds in the backfield area beyond the needs of the baseball field and it is their hope that this ground can be made productive enough to permit further garden therapy for patients and members. They do have a greenhouse to which patients have been assigned but lack suitable place to transfer the plants. Mary F. Raines, who is Chief of Special Services at that Center thanks all clubs who have given assistance and I am asking her to keep us informed of particular needs that we may be able to help at this point.

I have likewise talked with Miss Lillian Grenstein who is occupational Therapist at the Veterans Hospital in Sioux Falls and hope to have specific information for you in my next article.

Please continue to let me know of your needs and I will do my best to help you. A very, very satisfying year of gardening and service ahead to you all.

MILDRED IBACH,

State Garden Therapy Chairman

ARTIFICIAL LIGHT

(Continued from page 89)

at a distance of 12 inches from the tubes. For somewhat less intensity raise the lights to 15 or 18 inches above the plants.

Distance. Twelve inches distance between the tubes and the leaves is about as close as will be found convenient for watering the general maintenance. At too high a light intensity leaves may

be bleached or burned where the chlorophyll or green coloring pigment is destroyed. Too low an intensity results in spindly plants and flowering is reduced in the case of African violets and Gloxinias.

Hours of light. Excellent results have been obtained with 16 to 18 hours of light per day. Fewer hours usually gives proportionally poorer plants. By not turning the tubes on and off, their life is increased. Time clocks are useful devices for automatically turning the lights off and on.

Location. Plants can be grown in the basement providing it is not too cold or damp. A dark corner of the living room may be used if the light fixtures are not objectionable. Some have used bookcases with one tube over the plants. Practically any area that is maintained at a temperature of 60 degrees to 75 degrees F. will be satisfactory.

Plants. The African violet has been grown very successfully under 600 foot candles of fluorescent light. In fact, such plants are usually superior to plants in sunlight because of the more uniform conditions of light and temperature.

Gloxinias do very well under fluorescent light at intensities of about 800 foot candles.

Orchids have been grown at 1,000 foot candles, but best results will be obtained if a glass case is constructed in which the plants are to be grown to maintain a high relative humidity.

A number of the small foliage plants, particularly the vines will do all under fluorescent light. Large specimens grow quite well under the reflector flood type lamps.

Plants that grow best only when in rather bright sunlight will not be satisfactory under fluorescent or incandescent lights.

Pointers. Fluorescent lights will not overcome poor soil, too much or too little water, over-or under-fertilization, cold drafts, gas fumes, or general negligence. Good cultural practices are just as necessary with plants under fluorescent lights as anywhere else.

YOUR YARD AND GARDEN

by

LEONARD A. YAGER, *Horticulturist*
Montana Extension Service

A NEW LAWN GRASS



Yager

There has been much publicity this spring and summer regarding a new lawn grass called Zoysia. The strain of Zoysia that has received most attention is known as Meyer Z-52.

Most Zoysia grasses start very slowly from seed, and some of the strains do not seed at all. For this reason, the grasses are most often started from grass plugs which range in sizes of one to two inches in diameter. Nurserymen sell Zoysia grasses in this manner. The plugs are planted six to twelve inches apart throughout the lawn area, and once established, the grass begins to spread by stolons and fill out the intervening spaces.

Not too much is known regarding the adaptability of this grass under Montana conditions. It is possible it might thrive in the sections of the state where the growing seasons are longest and where the summer temperatures are high. Since species of Zoysia grasses have originated from warm temperate and tropical sources, these conditions are important for its success in becoming established. The grass is brown during the cool growing season months and during the winter. Judging from that, it is likely that this grass will remain brown most of the season in many parts of Montana if it succeeds in growing at all.

The Meyer strain was tested at Bozeman about five years ago. Under conditions at Bozeman, the grass stayed practically at a standstill as far as growth was concerned, and some of the plugs died out. Because of its poor progress, this species was abandoned in the testing work.

Because of the uncertainty of results, it is very doubtful whether the Zoysia grasses should be used in Mon-

tana at the present time. Small plantings might be tried, but the planting of entire lawns with Zoysia grasses in Montana is not advised. It will be better to stick with the proven grasses such as Kentucky and Merion Bluegrass, Redtop, Fescues and Bentgrasses.

The approach to late summer marks one of the important times of the year to establish new lawns. August and on into September is nature's time of sowing grass seeds. The weather is cooler, weed growth is on the decline, and the prospects of fall moisture spell success in a lawn building program. Other important steps in establishing a good lawn are: a well drained subsoil, good surface drainage, a smooth, well-prepared seedbed, a fertile topsoil enriched with organic matter and chemical fertilizers, a high quality seed of a variety recommended for the area, and an ample supply of moisture to start the seed. Better get the lawn seed in before the middle of September. Otherwise, it might be a little too late.

LAWN MAINTENANCE

Do you wonder why some folks are able to grow a better patch of weeds than a nice healthy stand of lawn? Well, it must be that they do everything that favors the growth of weeds and not grass. Here are some of the ways to change your lawn into a nice, healthy weed patch. Don't ever fertilize the soil. Sprinkle the grass every day, especially when it's hot. Set the lawn mower so it cuts the grass as short as possible.

Now, this may seem a joke to some, but there are many who consciously or unconsciously follow such practices and then wonder why their grass doesn't grow.

The chief variety of grass found in lawns in Montana is Kentucky Bluegrass. This variety is well adapted to most of our soils and to our climate. Under normal conditions, it is a deep rooted grass and requires at least a moderately fertile soil. Under such conditions, it offers keen competition against invading weeds including other species of grasses. If the soil is low in humus and organic matter and low in fertility this grass becomes less thrifty and other weeds take over and crowd it out. So, maintaining fertility is one important practice in keeping this grass strong and vigorous. On annual fertil-

izing with a complete fertilizer or ammoniated phosphate fertilizer is desirable followed with light dressings of nitrogen fertilizer during the growing season.

If conditions are right, roots of bluegrass will often extend below the two foot level of the soil. Many gardeners follow a daily sprinkling practice in watering their lawns. This is extremely harmful, since it encourages shallower rooting of the bluegrass. Should a prolonged dry period occur the grass is weakened and weeds take over. The proper method of watering a bluegrass lawn is to water at 5 to 10 day intervals or longer giving the equivalent of at least an inch or two of water at each irrigation. The frequency, amount, and method of watering will depend on soil texture, weather conditions and other factors.

Too close mowing of bluegrasses causes the eventual shortening of the root system resulting in weaker grass plants again inviting trouble from invading weeds. Observations indicate that Kentucky bluegrass should never be cut shorter than 2 inches during hot weather and not less than 1½ inches during the cooler parts of the growing season. Now's the time to check the lawn mower and raise the cutting blades so they do not cut the turf too closely.

There is nothing more important than starting out correctly right from the beginning. This means starting the new lawn on good, fertile topsoils, using the best quality seed on the market and providing good drainage for the new turf.

She's got an hour glass figure and not a second of it is wasted.

—GENE AUTRY SHOW, CBS Radio

A person who boasts about his family tree usually comes from the shady side.

—J. S. YOUNG, CBS Radio.

She's an excellent housekeeper. Every time she gets a divorce she keeps the house.

—ARGUS LEADER

IMPRESSIONS OF EUROPEAN GARDENING

by

DR. CHAS. WALKOF,

Vegetable Specialist,

Dom. Exp. Farm, Morden, Man. Can.

The art of the green thumb is highly specialized in England and Holland. Many home gardeners as well as the professional growers are masters at the job of propagating plants and encouraging them to flower and fruit to capacity. We are at all time inclined to credit some of this success to a favorable climate. However, anyone visiting European gardens as I was privileged to do in 1955 is impressed with the fact that the climate is not all important but other things such as thorough soil preparation, proper fertilization, timely watering, etc. and an inherent knack for gardening contribute much to good plant development.

European gardeners often start with a poor soil and by uncanny means of soil building develop marked fertility. In many instances the gardeners also develop their own micro-climates with special and usually cheap glass covered equipment. Most impressive to the Canadian visitor is the casualness and extended Old Country patience which appears to be an integral part of good gardening and of which people in North America seem so devoid at times.

Organic matter is all important for most horticultural plants. It may be difficult to obtain adequate amounts of the proper material because farm-yard manure at one time the best source is no longer available in quantity. Accordingly, compost heaps are quite popular in Europe. Weeds, tree leaves, grass or hay, grain straw, seaweed, etc. are commonly used for compost. In Holland the weeds on canal water are collected for compost. The Danish gardeners prefer barley straw treated with $2\frac{1}{2}$ pounds of chemical nitrogen fertilizer, such as ammonium sulphate, for 60 pounds of straw. In England the composting action is facilitated by special soil amendments. Some gardeners make sure that certain weeds are included in the compost heap because of their important living constituents such as enzymes and hormones which micro-organisms use in

breaking down raw fibrous material. Weak sugar solutions and, at times, honey in which hormones also occur are used to water the compost heap. Furthermore, soaking the compost heap thoroughly when it is first made up is essential even under conditions of considerable rainfall.

Gardeners in Europe use large quantities of glass to facilitate plant growth. In England cloches or miniature green-houses are used in which the glass is held in place with wires. The common glass protector in most countries is the unheated double-span Dutch lite frame. This frame consists essentially of two coldframes attached to one back or center support. The Dutch lites or windows measuring $28\frac{1}{2} \times 51$ inches have only one glass pane. Adequate ventilation is most important with this equipment especially in bright weather. If adapted to North Dakota conditions it should be possible to grow vegetables and flowers in the frames for extra heat should further increase their usefulness in cool weather.

The rototiller type of cultivator known by various names, such as the Ro-Lo cultivator, is highly popular in England. It is described as bridging the gap between man-power and horse-power. This machine is equipped not only with the digging tines which stir up the soil to a depth of 5 and 6 inches but also with attachments such as hoes, ridger and plough. The digger tines are probably the most popular attachment because they mix compost and other fibrous material into the soil as they destroy the weeds, and mulch crusty soil. As a result of a tillage experiment conducted at the vegetable research station at Luddington near Stratford-on-Avon, it was found that rototilling the soil provides an excellent seed bed for weeds. In comparison, ploughing and hand digging encourage less weed seed germination probably because the seeds were buried deeper than with rototillage.

It was of interest to note the extensive use that is being made of the cut flower type dahlia in most north European countries. Many home gardens had a great variety of colors and types. No one type was more popular than another and the range of material grown was fairly equally divided among the cactus, decorative, bicolor solid color etc. types. The flower mar-

kets in Holland had on sale a predominance of dahlias. Nurseries and seed firms marketing this type of flower carefully check their stocks for virus diseases especially mosaic by a system of tuber indexing much like the one used for potatoes.

Hardy chrysanthemums are highly popular in northern Europe. A cool climate such as is found in Scotland, Norway and Sweden is especially favorable for these perennials. In the important flower growing areas of Holland chrysanthemums are grown in the coolest soils available and one Dutch innovation is to cool the green house for flower production, during the summer by pumping underground water, which is only 2 feet below the surface, through pipes normally used for heating.

The use of vegetables in the Scandinavian countries is rather different from that in Canada. Cooked vegetables are most popular and parsley is used in large quantities to provide vitamin C especially in communities where citrus fruits are not commonly found on the market. Celeriac or knob celery is used extensively as a cooked vegetable. It is possible that this may also serve as a substitute for celery hearts which are popular in Canada, providing a high quality celeriac variety is available. The leek is enjoyed as a cooked vegetable in many European countries. Horse radish is also grown in large quantities for table use. In Denmark plant breeders are developing a long oval garden beet in preference to the round varieties, for greater ease in slicing. Large cucumbers are especially popular in Denmark. They are preserved soon after harvest for winter use by peeling, coring, slicing and finally placing in brine solution. They are used as desired either raw or cooked. It is possible that we in North America who are not familiar with some of these uses for vegetables may find new sources for enjoying more of the products from our gardens. The apparent ease with which European gardeners grow vegetables, flowers and fruits and the marked success of their endeavors implies that there are innovations in plant growing that may have value for the North American gardener.

Paper of talk given at the meeting of the N. D. Horticultural Society at Maddock, N. D. June 26, 1956.

SECRETARY'S CORNER

by

W. A. SIMMONS



Simmons

Mr. A. S. Horn, Secretary of the Idaho State Horticultural Society, has some interesting things to say about the Japanese Tree Lilac, in Idaho Agricultural Science, as follows: "The Tree lilac is one of the best choices for Idaho altitudes of 4,000 to 5,000 feet high, as it is hardy, blooms early every summer, and seldom grows more than 30 feet high, so it does not dwarf a house. The tree is generally raised from seed, and the bark is like a cherry tree. Leaves resemble those of the lilac and the tree thrives in the same rugged conditions the lilac endures. The tree lilac grows slowly but lives long. It's a good plant for the shrub border and is particularly useful in landscaping the modern ranch house." An article in the magazine TREES, by the brilliant Editor E. H. Scanlon, seems worth passing on, as I have touched on it several times, in this magazine. "Having been a proponent of the art of civic embellishment, through the selection and use of trees on city streets for many years, it is gratifying to travel around the country and see the change that is taking place in this so important phase of arboriculture. While some use is still being made of the troublesome and very expensive forest giants, the trend is definitely away from these mistakes of the past. There are some who still decry this trend to sanity, common sense and workable budgets. Fortunately they are very few and their voices are becoming weaker and weaker as this turn to the use of trees that make sense gains ground at a rapid rate from coast to coast. Recently while riding in an air line bus, we struck up a conversation with the only other passenger. Strangely enough the conversation soon swung around to street trees and the tremendous values they impart to the stability, beauty and well being of a city-or rather, that which common

sense trees could do. He became quite vehement about the use of big trees—"the darn things should be out in the woods or in the parks, where they can't wreck everything. When are you people going to become realistic and get rid of them and start using trees that do not become so large?" He was then given a fast ten minute lecture on what is being done by a number of visionary tree planters across the country. It seems strange that this attitude is shared about 100% by every layman to whom we have talked, and there are thousands of them, but for a long time some arborists, nurserymen and other professional horticulturists violently opposed the trend to "dwarf" trees—whatever they are. No one, to the best of our knowledge has ever advocated using "dwarf" trees, which are probably meant to be derisive, unless they meant that by comparison with 60', 70' or 80' forest giant, that a neat, orderly 20' to 35' trouble free tree was a dwarf. Soon, very soon there will be streets of Japanese Cherries, Flowering Crabapples, Pauls Scarlet, Lavalie and Washington Thorns for people to flock to and admire and it won't break budgets to maintain them. We know, we saw streets of each of these varieties just a few weeks ago." The annual convention of the South Dakota State Horticultural Society and the South Dakota Federated Garden clubs, recently completed was a very pleasant and interesting affair. The two local Garden clubs and the State College laid themselves out to be nice to us, giving fine places to meet, and all the coffee we could hold, at numerous coffee breaks. The meeting began Tuesday evening with a fine buffet supper, followed by Board meeting at which much of the business of the past year was disposed of. The financial report of the Federation showed a pleasing cash balance, showing that the officers had been careful in handling the receipt of the year. Our two presidents, in presiding, handled the somewhat lengthy program skillfully, with very little lost time so that all was competed in the two days of program. The final day, Friday, our members were conducted around the interesting State College grounds, Dr. McCrory explaining things as they went. The officers of both branches had done such good work, that they were not allowed to leave their posts, the only change being the election of Mr. A. R.

Schamber, of Rapid City, as Horticulture Board member to replace Mr. C. I. Keck, who had left the state, moving to Minnesota. The Robertson Memorial Medal went to the distinguished plant breeder, Dr. A. F. Yeager, of Durham New Hampshire, the citation being given by Mr. H. R. Woodward, which you will find on another page. All of our outside speakers had worthwhile messages for us, showing that the program committee had used good judgment in selecting them. It was decided to accept the invitation of Pierre as the city in which to hold next year's meeting.

NEWSLANTS—

(Continued from page 83)

Twenty-three cars were counted as the tour left Westby's for the Spencer Sabbe farm near Flora. The Sabbe farm and yard will long be remembered for its extensive borders, tidy grooming and fine stone house.

Noon found the group lunching in the picnic grounds of the Benson County School, guests of the Commercial Club of Maddock. Following lunch, the tour continued on to the Jensen Evergreen Nursery at Esmond. Here over one million evergreens of various species and sizes were seen. Evergreens in all stages from tiny seedlings to marketable trees were pointed out. Each tour member was presented with a small potted evergreen as the tour ended. The meetings came to a close with coffee and doughnuts served by the Jensens.

This was without a doubt the most widely attended Annual Meeting in the past twenty years. Mrs. Lyle Weber, Glenburn; her neighbors, the Niewoeherners of Russel; Bob Askew of Casselton, the Martin Stahls of Pekin, Leo Kranks, Mrs. George Gress, and Mrs. J. A. Stefan, all of Dickinson; give some idea of the distribution of the folks registered. Benson county was very well represented.

Much dignity was lent to the sessions by the presence of former State Senator and Mrs. E. B. Lichty of Cando; and Col. Dana Wright of St. John. Both are long time members of the Society. Missed especially: Ernie George and Bill Baird from the Mandan Station; anyone from the Oscar

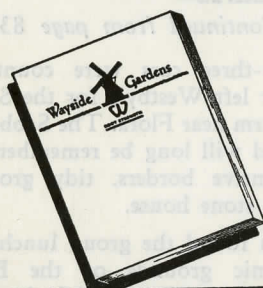
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Gardens

Will Co.; Margaret Rusten; Soren Clausens; George Stewarts; R. L. Wodarz; Franklin Pages, Frances Kanowski, Henry Biels—to mention a few. Most had a good reason, I am sure.

Mentioning names for special credit is always risky for fear of inadvertently omitting someone, but here goes. A special bouquet to Lucille Westby for her hard work on general arrangements and good chairmanship. Many thanks also to Thomas Tate, Superintendent of the Benson County School, for the many excellent facilities made available; to Peter Dalbak, custodian, for his patience with us, and his all around help; to the Maddock Bank for the attractive windshield placards; to the Commercial Club of Maddock the picnic lunch on Friday noon; and to the Jensens for the tour, trees, and "toffee."

The invitation from Fargo to hold the 1957 Annual Meeting in Fargo was accepted.

There is much hue and cry—also demonstrations and posters at City Commission meetings in Fargo these days over dogs who have some fond-

ness for expensive ornamental evergreens and the seat of mailmen's trousers. The "Friends of Fido" see no harm in sacrificing a few juniper, or arbor vitae; and insist the few dozen friendly nips meted out to mailmen are all in fun—especially since most of the dogs have been given rabies shots, anyhow! Attention is called, also, to the excellent material now found in the uniforms worn by our carriers of mail. It takes a good dog to bring home a patch nowadays! A story has been going the rounds, and repeated with tongue in cheek; that the local nurserymen are secretly supporting the "Friends of Fido" movement. "Why," one nurseryman was heard to remark recently, "If all the dogs in Fargo were kept on leash or confined in yards; the sale of ornamental evergreens would fall off 50%!" Pros and cons wax hot and fast, also furious. Reports of successful restraining dog ordinances in nearby cities are dismissed as inhuman. In case you haven't read between the lines and discovered which side of the kennel I am on, let me say in closing that we have contributed two fine specimens of Siberian arbor vitae, to the cause

of free roaming dogs—at liberty to fire at will. Should I decide on a little demonstration of my own on Seventh Avenue, proclaiming dogs on-the-loose a menace; I bet a nickle our mailman will march by my side.

Mrs. Christian: "The annual office dinner is next week. What are you going to wear?"

Mrs. Lang: "My gray dress. We're supposed to wear something to match our husband's hair."

Mrs. Christian: "Oh dear! I don't think I'd better go!"

"Now," soothed the psychiatrist, "tell me about this dream you had."

"Well," said his feminine patient, "I dreamed I was walking down the street with nothing on but a hat."

"And you were embarrassed?"

"Yes, I was. It was last year's hat."

Did you hear the new program on the radio about the gal who wanted two bathrooms? It's called, "The wife's other John."

DAKOTA HORTICULTURE